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10/591,013	08/29/2006	Daisuke Sasaki	3828	5819

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EXAMINER	
GEBREMICHAEL, BRUK A	

ART UNIT	PAPER NUMBER
3714	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/591,013	SASAKI, DAISUKE	
	Examiner	Art Unit	
	BRUK A. GEBREMICHAEL	3714	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 February 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-5* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-5* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *29 August 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. The following office action is in response to communications received on 02/18/2008. Claims 1 and 4 have been amended.

Response to Amendment

2. Applicant's amendment to the Abstract and to claim 4 is sufficient to overcome the objections set forth in the previous office action. The Examiner respectfully withdraws the objections.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Saita 6,719,565 in view of Hamburg 6,028,583, in view of Fertig 2004/0239689, and further in view of Yoshio 7,245,306.

Regarding claim 1, a color simulation system comprising a display section, a base screen displaying section displaying a base screen on the predetermined display area of the display section (FIG 2, label 4 and FIG 3), a hair color data storage section recording RGB values of each of original hair colors to be subjected to hair coloring (col.3, lines 1-11), a hair line data storage section recording image data of hair line (col.2, lines 54-58), a first input section for receiving an input of choice of one hair color

from the original hair colors recorded in the hair color data storage section (col.4, lines 29-32), a first image displaying section displaying the hair line with the predetermined transparency on the first layer of the base screen according to the image data recorded in the hair line data storage section (FIG 2, label 4).

However, Saita does not positively teach, the base screen comprising first through fifth layers, a hair color preparation data storage section recording RGB values of each of colors of hair color preparations, a second input section for receiving an input of choice of two hair color preparations from the hair color preparations recorded in the hair color preparation data storage section together with mixing ratio of the selected hair color preparation, a second image displaying section retrieving the RGB value of the selected hair color from the hair color data storage section and displaying the selected hair color without transparency on the fifth layer of the base screen based on the input received at the first input section, a third image displaying section retrieving the RGB values of the selected two hair color preparations from the hair color preparation data storage section and displaying the colors of the selected two hair color preparations with the transparency corresponding to the selected mixing ratio thereof on the third and fourth layers of the base screen respectively based on the input received at the second input section, and a fourth image displaying section retrieving the RGB value of the selected hair color from the hair color data storage section and displaying the selected hair color with the predetermined transparency on the second layer of the base screen based on the input received at the first input section.

Hamburg discloses a graphical image manipulation invention that teaches, a base screen comprising first through fifth layers (FIG 6 and col.3, lines 65-67).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the invention of Saita in view of Hamburg by incorporating image stacks with multiple layers in order to combine the color of each pixel in the different layers there by generating the required composited color, since such layer manipulation method gives flexibility for adjusting the transparency information required for the desired color.

Fertig discloses an invention for a hair color simulation that teaches, a hair color data storage section recording RGB values of each of original hair colors to be subjected to hair coloring (Para.0020, lines 4-7), a hair color preparation data storage section recording RGB values of each of colors of hair color preparations, a hair line data storage section recording image data of hair line (Para.0013, lines 12-16), a second image displaying section retrieving the RGB value of the selected hair color from the hair color data storage section and displaying the selected hair color without transparency on the fifth layer of the base screen based on the input received at the first input section (see FIG 3, label 47).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the invention of Saita in view of Hamburg and further in view Fertig by configuring the computer display to have multiple windows in order to display the colors to be selected in one pane, and the hair of the subject in a

different pane so that the user would easily observe his/her hair image while choosing the preferred color combinations.

Yoshio discloses an image processing apparatus and method that teaches, a third image displaying section retrieving the RGB values of the selected two hair color preparations from the hair color preparation data storage section and displaying the colors of the selected two hair color preparations with the transparency corresponding to the selected mixing ratio thereof on the third and fourth layers of the base screen respectively based on the input received at the second input section (FIG 3, label 311), and a fourth image displaying section retrieving the RGB value of the selected hair color from the hair color data storage section and displaying the selected hair color with the predetermined transparency on the second layer of the base screen based on the input received at the first input section (FIG 3, label 312).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the invention of Saita in view of Hamburg in view Fertig and further in view of Yoshio by including a pre-adjustment image window and a post-adjustment image window in order to allow the user to adjust the degree of the blending ratio by moving the sliders while observing the rate of change on the two image windows so that the user would get the required color blend efficiently.

Note:- based on the applicant's disclosure, the following interpretations is applied for the claimed limitations.

- *a base screen displaying section displaying a base screen on the predetermined display area of the display section* is indicated as label 20, in FIG 2, this limitation is taught by Saita as already shown in FIG 3.

- *a second input section for receiving an input of choice of two hair color preparations from the hair color preparations recorded in the hair color preparation data storage section together with mixing ratio of the selected hair color preparation* is the slider discussed on page 5, lines 25-27 and indicated as label 24 in FIG 2. Yoshio's invention FIG 5, label 502 and col.6, lines 22-25 teaches this feature.

- *a second image displaying section retrieving the RGB value of the selected hair color from the hair color data storage section and displaying the selected hair color without transparency on the fifth layer of the base screen based on the input received at the first input section* is indicated as label 21 in FIG 2, and this is taught by Fertig's invention FIG 3, label 47.

- *a third image displaying section retrieving the RGB values of the selected two hair color preparations from the hair color preparation data storage section and displaying the colors of the selected two hair color preparations with the transparency corresponding to the selected mixing ratio thereof on the third and fourth layers of the base screen respectively based on the input received at the second input section* is indicated as label 22 in FIG 2, and this is taught by Yoshio's invention FIG 3, label 311.

- *a fourth image displaying section retrieving the RGB value of the selected hair color from the hair color data storage section and displaying the selected hair color with the predetermined transparency on the second layer of the base screen based on the*

input received at the first input section is indicated as label 23 in FIG 2, and this is taught by Yoshio's invention FIG 3, label 312.

Regarding claim 2, Saita in view of Hamburg in view Fertig and further in view of Yoshio teaches the claimed limitations as discussed above.

Hamburg further teaches, a base screen displayed by the base screen displaying section has an intermediate layer between the first and second layers (FIG 6, label C+k+1).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the invention of Saita in view of Hamburg in view Fertig and further in view of Yoshio by generating intermediate layer between the first and second layers in order to provide information as a function of position or pixel for the color blending so that the user would see the color blending effect between the two layers as one overlays on the top of the other.

Fertig teaches, a second hair line data storage section recording image data of second hair line which is different from the hair line recorded in the hair line data storage section in line pattern and color (Para.0013, lines 4-12), and a fifth image data displaying section displaying the second hair line with the predetermined transparency on the intermediate layer of the base screen according to the image data recorded in the second hair line data storage section (Para.0013, lines 15-20).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the invention of Saita in view of Hamburg in view Fertig and further in view of Yoshio by taking different individual pictures and

performing an automatic picture processing in order to separate the individual pictures, changes the hair color according to a predetermined specification and display the altered individual pictures so that the user would see the appearance of his/her hair for different choices of colors.

Even if Fertig does not explicitly indicate a second hair line data storage section, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to recognize the fact that the computer system stores the first image and the second image before displaying or performing any color alteration, and therefore this is implicitly taught.

Regarding claims 3 and 4, Saita in view of Hamburg in view Fertig and further in view of Yoshio teaches the claimed limitations as discussed above.

Yoshio further teaches, the third image displaying section displays the selected two hair color preparations with the colors which are deeper than the original colors thereof recorded in the hair color preparation data storage section by the predetermined RGB value and with the transparency corresponding to the selected mixing ratio thereof (FIG 3, label 312), the third image displaying section displays the color one of the selected two hair color preparations on the third layer with the transparency which is lower than the transparency determined by the selected mixing ratio and the color of the other of the selected two hair color preparations on the fourth layer with the transparency which is higher than the transparency determined by the selected mixing ration (col.6, lines 17-25).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the invention of Saita in view of Hamburg in view of Fertig and further in view of Yoshio by incorporating the post-adjustment window where the user would see the blending colors on the layers while adjusting the slider so that the required color would be achieved.

Regarding claim 5, Saita in view of Hamburg in view of Fertig and further in view of Yoshio teaches the claimed limitations as discussed above.

Saita further discloses, the display area of the display section is a hair of head of a model's face displayed by the display section (FIG 3).

Response to Arguments.

4. Applicant's arguments filled on 02/18/2008 have been fully considered. In the remarks, Applicant argues that,

(1) The system taught by Saita does not involve a database. An image of the hair color to be colored is generated using a digital camera. There is no selection or choice involved regarding the original color of the hair before hair coloring, only the choice of a target hair color after coloring…Saita does not teach or suggest a stored database of original hair colors or receiving an input choice of original hair color.

(2) Fertig teaches a system in which real time images, rather than still photographs are, used during hair coloring consultation. Paragraph 0017 teaches a hair dresser may have a separate monitor from the client and that the monitor may display a color palette of target hair colors. Neither Saita nor Fertig, however, teach or suggest using binary mixtures of hair colors with mixing ratios for the two colors.

(3) Satia does not disclose layering of images, but rather the generation of a simulated image having a selected hair color. Column 2 discloses, (i) an image memory means in to which image data is input and stored, (ii) a processing means that finds the hair area in the input image and builds a simulated image in which the hair area is changed to any color, and (iii) a monitor on which the input image and/or the simulated image are displayed. No layering of images, as recited in the present claims and described in the present application, is disclosed in Satia.

(4) Bazin, paragraph 0015, lines 16-22 and FIG. 5, labels 21 and 22 are cited by the Examiner as teaching a third image displaying section retrieving the RGB values of the selected two hair color preparations from the hair color preparation data storage section and displaying the colors of the selected two hair color preparations with the transparency corresponding to the selected mixing ratio thereof on the third or fourth layers of the base screen, respectively based on the input received at the second input section based on the input received at the second section. The cited sections of Bazin teach a definition for “varying degrees” as used in the reference patent and scrolling a sequence of images having varying degrees of typological features. Bazin does not teach or suggest the display of any layered images, but rather the sequential viewing of distinct images. Bazin does not teach or suggest the storage of hair color preparation data or mixing ratios associated with hair colors.

- In response to argument (1), The Examiner disagrees. Saita’s invention does teach the selection of choice of colors and it also teaches a data storage section. Satia’s invention further teaches that there are different hair colors that are already stored in the

system. For example the line, "FIG. 2 shows an example of the construction of the system that provides this hair color advice method, and includes a personal computer 1 that **serves as a memory** means into which image data regarding the subject is input and stored and **as a processing means** that finds the hair area of the subject in the input image and simulates an image with a hair color." (col.1, lines 52-58), teaches that the memory is the storage section that stores the original hair color of the subject, and the process of simulating the hair color suggests that there are different hair colors already stored in the computer from which the computer displays the simulation.

In addition, the line, "the hair **color desired by the subject is specified on the personal computer**, and **a hair color simulated image is built and displayed** on the monitor 4 in which the hair area (more precisely, the hair area found by the personal computer 1…"(col.4, lines 30-34), teaches that the subject selects a desired hair color, and the computer simulates the hair color based on the selections.

In response to Argument (2), based on the specification of the Applicant, the color chart is used for the selection of the desired hair color (Page 5, lines 18-20). This same color chart is taught in Fertig's invention to select the desired hair color (Para.0017). Therefore, whether this color palette is used by a hairdresser or the subject him/her self, the claimed feature *input section for receiving an input of choice of one hair color from the original hair colors recorded in hair color data storage section*, is already suggested by Fertig's invention.

Even if it is obvious to one of ordinary skill in the art at the time of the invention was made to recognize the fact that colors are stored in computer memory as RGB values, Satia's in view of Fertig's inventions seems to be silent in this regard.

However, Yoshio's invention teaches that color image processing performed with regard to RGB components (col.1, lines 15-18), and therefore, this claimed feature is old and well known in the art that it would have been obvious to one of ordinary skill in the art at the time of the invention was made to adjust blending of colors using the RGB values of each color as taught by the prior arts.

In response to Argument (3), as already indicated in the above section, Hamburg's invention teaches image manipulations using different layers of images. In this invention, the color of each pixel in image layers is combined to produce a new composited color (col.5, lines 16-24).

Therefore, this claimed feature is also old and well known in the art that it would have been obvious to one of ordinary skill in the art at the time of the invention was made to blend a desired color by combining different image layers, as already taught by the prior arts.

In response to Argument (4), as already mentioned above (in Response to Argument 3), the claimed limitation regarding the display of layered images is taught by Hamburg's invention. However, since Bazin's invention is not used in this office action, no response with regard to Bazin's reference is provided.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bruk A. Gebremichael whose telephone number is (571) 270-3079. The examiner can normally be reached on Monday to Friday (7:30AM-5:00PM) ALT. Friday OFF.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Xuan Thai can be reached on (571) 272-7147. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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